



DEPARTMENT OF THE NAVY
NAVAL AIR SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND HEADQUARTERS
WASHINGTON, DC 20361-0001

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IN REPLY REFER TO
NAVAIRINST 4700.20
AIR-431
14 Jan 87

NAVAIRINST 4700.20

From: Commander, Naval Air Systems Command

Subj: UNIFORM CRITERIA FOR REPAIR COST ESTIMATES USED IN
DETERMINATION OF ECONOMICAL REPAIR

Encl: (1) OPNAVINST 4700.37

1. Purpose. To implement within the Naval Air Systems Command (NAVAIR) enclosure (1) which provides the criteria and principles to be used in estimating the cost of major repairs for materiel and determine their eligibility or ineligibility for economical repair.
2. Scope. This instruction applies to NAVAIR field activities having a materiel support responsibility for the equipment maintenance of naval weapons systems and equipment.
3. Action. Addressees will comply with the provisions of this instruction.

D. J. Wolkenstorfer
D. J. WOLKENSDORFER
Assistant Commander for Fleet Support
and Field Activity Management

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item of materiel in efficient operating condition.

- C. A Major Repair for purposes of this Instruction is a repair, the cost of which exceeds ten percent of the standard inventory price of the item of materiel.
- D. An Economic Repair is a repair, the cost of which is less than the value of the estimated remaining useful life of the materiel at a point in time based on life expectancy, acquisition or replacement cost and other relevant factors.

IV. CRITERIA AND PRINCIPLES

- A. Cost Estimates will be based on performance of the required maintenance at the nearest facility (organic or contract) having the capability and normally performing the same or similar type maintenance.
- B. The following elements of cost will be used in estimating repair costs of materiel for determining repair eligibility:
 - 1. Direct Labor
 - 2. Direct Material
 - 3. Indirect Expenses
 - 4. Other Direct Charges
- C. Direct labor is that labor, either civilian or military, which can be specifically identified to the repair job to be performed.
 - 1. In order to arrive at direct labor cost it is necessary to first determine the direct labor man-hours to be applied, and then to apply the appropriate direct labor hourly rate to these hours to arrive at direct labor cost.
 - 2. Direct labor hours will represent the best available estimate. Where appropriate, DoD components may prescribe the use of flat rate manuals for determination of direct labor man-hours required. Otherwise, estimates will be based on similar work performed previously or estimates based on individual experience.
 - 3. Labor Rates for Civilian Employees. Cost of civilian

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OPNAVINST 4700.37

NUMBER 7220.21

DATE May 1, 1973



ASD(MRA&L)

Department of Defense Instruction

SUBJECT Uniform Criteria for Repair Cost Estimates Used in
Determination of Economical Repair

- References:
- (a) DoD Instruction 7220.21, "Uniform Criteria for Repair Cost Estimates Used in Determination of Economical Repair," December 23, 1966 (hereby cancelled)
 - (b) DoD Directive 4151.16, "DoD Equipment Maintenance Program," August 30, 1972
 - (c) DoD Handbook 7220.29-H, "DoD Depot Maintenance and Maintenance Support Cost Accounting and Production Reporting," authorized by DoD Instruction 7220.29, October 20, 1975
 - (d) DoD Handbook 7220.9-H, "Accounting Guidance," authorized by DoD Instruction 7220.9, July 12, 1971

I. REISSUANCE

This reissuance is to update reference (a) administratively without substantive change, and reference (a) is hereby cancelled.

II. PURPOSE AND APPLICABILITY

This Instruction standardizes the criteria and principles to be used by the Military Departments and those Defense Agencies having responsibility for maintenance of equipment in estimating the cost of major repairs to materiel to determine its eligibility or ineligibility for economical repair in accordance with standards established pursuant to reference (b).

III. DEFINITION

- A. Materiel as used herein consists of all tangible items (including ships, tanks, self-propelled weapons, aircraft, etc., and general support articles, but excluding real properties, installations and utilities) necessary for the equipment, operation, maintenance and support of military activities, without distinction as to its application for administrative or combat purposes.
- B. Repair is the restoration or replacement of parts or components of materiel as necessitated by wear and tear, damage, failure of parts or the like in order to maintain the specific

#First amendment (Ch 1, 6/29/78)

Enclosure (1)

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DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, DC 20350-2000

IN REPLY REFER TO
OPNAVINST 4700.37
OP-325D
4 February 1986


OPNAV INSTRUCTION 4700.37

From: Chief of Naval Operations

Subj: UNIFORM CRITERIA FOR REPAIR COST ESTIMATES USED IN
DETERMINATION OF ECONOMICAL REPAIR

Encl: (1) DOD Instruction 7220.21 of 1 May 73

1. Purpose. To standardize criteria and principles to be used by the Navy in estimating the cost of major repairs for material and to determine their eligibility or ineligibility for economical repair per Department of Defense standards established by enclosure (1).
2. Cancellation. NAVMATINST 4700.6B.
3. Scope. This instruction applies to all naval components having a material support responsibility for the equipment maintenance of naval weapons systems/equipment.
4. Action. Addressees are requested to issue implementing directives to assure compliance with the criteria and principles in enclosure (1).


D. C. RICHARDSON
Director,
Surface Warfare Division

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ENCLOSURE(1)

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labor will be based on a labor rate for the work center performing the work as follows:

- a. When costs of civilian labor are determined on the basis of annual salaries, these costs will be computed by adding to the gross pay as shown in current pay tables, the factor for Government-contributed benefits provided in reference (d).
(As of April 1, 1973 this factor is 9.0%.)
- b. When costs of civilian labor are determined on the basis of direct labor hours (days, etc.) applied, these costs will be computed by adding to the gross pay, as shown in current pay tables, a DoD-wide factor, as provided in reference (d). (As of April 1, 1973 this factor is 29.0%.)
- 4. Labor rates used for military personnel will be the average military wage rate for the work center performing the work, based on standard rates published in DoD Handbook 7220.9-H (reference (d)).
- 5. DoD components may establish and use standard hourly rates for direct labor to include indirect expense as long as such rates are consistent with this Instruction. Separate rates will be established for:
 - a. Each major weapon/support system category as defined in DoD Handbook 7220.29-H (reference (c)).
These categories are:
 - (1) Aircraft
 - (2) Automotive Equipment
 - (3) Combat Vehicles
 - (4) Construction Equipment
 - (5) Electronics and Communications
 - (6) Missiles
 - (7) Ships

(8) Armament

(9) Rail Equipment

(10) General Equipment

(11) All other Items

b. Depot maintenance (usually civilian) and intermediate maintenance (usually military).

c. Each major geographical area where wage levels vary significantly (CONUS, Japan, Germany, etc.).

D. Direct Materials

1. Cost to repair will include all materials directly applied and identifiable to the particular materiel undergoing repair including Government-Furnished Materials to be consumed by a contractor in performing all or a part of the maintenance job.
2. Consumable items received from the DoD Supply Systems will be costed at the standard inventory price. Items procured from local services will be priced at the latest invoice cost including transportation. Fabricated items will be priced at actual cost, including indirect expenses, as defined herein.
3. Components and assemblies used in the repair process will be costed at the exchange price, representing the standard inventory price less credit for the return of unserviceable reparable components removed. The exchange price may be established as a percent of the standard inventory price as long as it reflects the estimated cost to repair.

E. Indirect Expenses

1. The cost estimate will include indirect expenses associated with the repair process which will be determined by applying the indirect expense rate (expressed as dollar cost per direct labor manhour) to the estimated direct labor man-hours.

2. The indirect or overhead costs included in the indirect expense rate shall include, (a) manufacturing or production expense, i.e., indirect cost incurred within or identifiable to the maintenance shop or organization performing the repair work, although not identifiable to particular jobs, and (b) general and administrative expenses -- costs incurred in general management or supervision which are measurable costs chargeable to maintenance activities.

F. Other Charges

1. Contractual Services required incident to and identifiable with the performance of all or a portion of the specific maintenance job, will be included as an element of cost. If the contractor is to perform a significant portion of the maintenance job the cost estimate will show the projected charges for labor and contractor furnished parts in addition to the total contract price.
2. Readying for Shipment. Where the materiel cannot be repaired on site and costs must be incurred to prepare the item for shipment regardless of destination, such costs are to be included in the estimate of cost to repair.
3. Other. Any other charges required to accomplish the required maintenance and directly identifiable to the materiel will be included, although not specifically mentioned herein.
4. Freight. When the materiel to be repaired is located overseas and no local capability to repair exists, the cost of freight to the United States will be included as an element of cost. In all other cases, cost of freight will be excluded.

V. EXCLUSIONS

The following costs will not be included in the estimate of

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cost to repair.

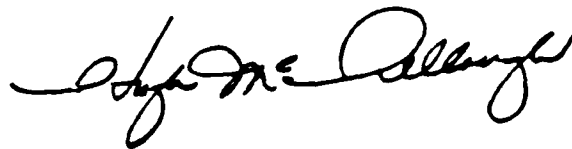
- A. Other Operating Expense Items. Such items as tires, tracks, batteries, tire chains and antifreeze, are not to be included as a cost in the repair estimate except where replacement is the result of accident damage.
- B. Modification Work Orders. The cost of applying modification work orders is not to be included in a cost to repair estimate.
- C. Accessories. The cost to overhaul or replace accessory items used to adapt the equipment for special uses, such as sirens, flashing lights, rank insignia, two-way radios, fire extinguishers, tool kits or similar items, is not to be included in the cost of repairs estimate. This will eliminate from such cost estimates the cost to repair for items the replacement or acquisition cost of which is not included in the standard inventory price of the item. Individual estimates of cost to overhaul such items will be made as appropriate and required.

VI. EFFECTIVE DATE

The provisions of this Instruction shall be effective immediately upon issuance.

VII. IMPLEMENTATION

Two copies of each implementing document shall be submitted to the Assistant Secretary of Defense (Installations and Logistics) within 60 days.



HUGH MCCUTCHEON
Acting Assistant Secretary of Defense
(Installations and Logistics)